TAB I

OXCART

1. On 29 December 1966, a decision was made to terminate the OXCART Program effective 31 December 1967. An orderly phase-down plan for termination, SCOPE COTTON, was implemented in the Spring of 1967. (See Appendix A for scheduled phase-down of aircraft). Because of the long lead time necessary for spares, procurement and engine overhaul, any changes to this phase-down must be made well in advance of the final phase-out date.

2. Development Summary:

a. Since the A-12 aircraft achieved full operational capability in late 1965, it has repeatedly demonstrated acceptable inflight reliability. The fleet now consists of nine aircraft. Six are operational, one is a test bed, and one is a two place trainer. One other test aircraft is being placed in storage in accordance with the OXCART phase-down.

b. As of 30 June 1967, 2470 flights have been completed for a total of 4013 flight hours. 757 flights have been completed (339 during the past year) which have reached or exceeded speeds of Mach 3.0 for a total of 455 flight hours (249 during the past year) at or above

Mach 3.0. The maximum speed achieved has been Mach 3.29. The maximum altitude achieved has been 90,000 feet. The longest single flight (4 air refuelings) has been 7 hours 40 minutes. On another flight 3 hours 50 minutes were spent at or above Mach 3.0. The longest single sustained flight time at Mach 3.2 and above has been 1 hour 14 minutes. For the past two years, Mach 3 flights have been made repeatedly, routinely, and successfully on a daily basis.

c. The J-58 engine continues to perform well. Reliability experience based upon over 7442 engine flights indicates a reliability of 99% for that portion of flight after initial climb. This is representative of the critical portion of a mission after the penetration of denied territory. The OXCART support test program is being terminated now at Pratt & Whitney in accordance with phase-down instructions. This program involved product improvement and the correction of those problems surfaced in flight.

d. There are currently five camera systems left in the operational inventory built by Perkin Elmer. One was lost in an aircraft crash and two have been stored in accordance with the OXCART phase-down. Two cameras built by Eastman Kodak are being placed in storage in accordance

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with OXCART phase-down. Generally, the Perkin Elmer cameras have a ground resolution of one foot while the Eastman Kodak cameras had a ground resolution of 1.5 feet. Acceptable and reliable performance has been demonstrated by both configurations. In addition, two camera systems manufactured by Hycon are in the flight validation phase, and a third is in repair. These are longer focal length cameras with a ground resolution of one foot.

Ground support equipment and flight hardware for [redacted] have been placed in storage in accordance with the program phase-down. One aircraft was configured for flight test of the system. [redacted] have also been placed in storage for the same reason.

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e. The A-12 aircraft radar cross-section has been reduced considerably. Though the aircraft can be detected by SOVBLOC radar, defensive countermeasures equipments have been developed, tested and installed to considerably reduce the risk to the aircraft in a hostile environment. Due to the phase-down no further new efforts to reduce radar cross-section are under consideration. Development of a second generation countermeasures equipment has been completed and is being tested. Results to date are very

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encouraging. Upon completion of testing it will be introduced to the operational fleet.

f. All electronic countermeasures equipments scheduled for current use in the A-12 are on hand and operationally ready. These systems repeatedly have been flown and operated successfully in A-12 aircraft. This demonstrated capability in combination with the operational speed and altitude of the aircraft and the unique anti-radar plastic panels on the airframe, give the A-12 an acceptable level of invulnerability to unfriendly environments.

g. There have been four accidents since the flight program began in April 1962. As of 30 June 1967 this reflects an accident reliability of 99.83%. All of these accidents were attributed to traditional problems inherent in any aircraft and did not involve the high Mach number or high altitude regime of flight. The escape system successfully ejected the pilot in each case. However, in the last accident the pilot was killed on impact with the ground because of a malfunction precluding man-seat separation after ejection from the aircraft.

h. A detailed experience and reliability report covering the operational A-12 reconnaissance system through 30 June 1967 is attached (Appendix B).

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3. Operational Summary:

a. The OXCART project has maintained a Quick Reaction Concept (QRC) for A-12 aerial reconnaissance of Cuba (SKYLARK) and A-12 aerial reconnaissance of Far East targets (BLACK SHIELD).

b. On 15 May 1967 the OXCART detachment was ordered to deploy to Kadena Air Base, Okinawa and conduct reconnaissance operations over North Vietnam. Deployment was executed successfully and the first operational mission was conducted on 31 May 1967. Three more missions were flown in the period through 30 June 1967.

c. A summary of BLACK SHIELD deployment and operational sorties is listed below:

(1) DEPLOYMENT

(a) 22 May 1967 ACFT NO 131 flew non-stop from [redacted] to Kadena AB, Okinawa in 6:10 hours. The flight required top-off and 3 aerial refuelings and attained 79,000 feet during cruise at Mach 2.9 for two legs and 3.1 for one leg.

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(b) 24 May 1967 ACFT NO 127 flew non-stop from [redacted] to Kadena AB, Okinawa in 6:00 hours. The flight was similar to that of ACFT NO 131 above except an altitude of 81,000 feet was reached during cruise.

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25X1D (c) 26 May 1967 ACFT NO 129 flew from
25X1A [redacted] Wake Island in 4:30 hours. Landing at Wake Island was precautionary due to a malfunctioning navigation system. The flight was made at Mach 2.9 at 76,000 feet altitude. The aircraft proceeded uneventfully to Kadena on 27 May 1967.

(2) OPERATIONAL SORTIES

(a) BSX-001, 31 May 1967. Mission was flown at Mach 3.1 and 80,000 feet for a duration of 3:45 hours. Type I camera was employed. The mission was successful.

(b) BSX-003, 10 June 1967. Mission was flown at Mach 3.1 and 81,000 feet for a duration of 4:30 hours. Type I camera was employed. The mission was successful.

(c) BX-6705, 20 June 1967. Mission was flown at Mach 3.1 and 82,000 feet for a duration of 5:30 hours. Type I camera was again used. The mission proved to be the most successful to date.

(d) BX-6706, 30 June 1967. Mission was flown at Mach 3.1 and 81,000 feet for a duration of 5:00 hours. Type I camera was used and the mission was successful.

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d. On the four operational missions listed above, the OXCART vehicle obtained photographic coverage of forty-four (44) of the forty-eight (48) COMOR priority targets in North Vietnam. In addition, nineteen (19) additional targets were covered. Approximately seventy per cent (70%) of the known SAM sites in North Vietnam were covered and nine (9) new SAM installations were discovered through OXCART photography.

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